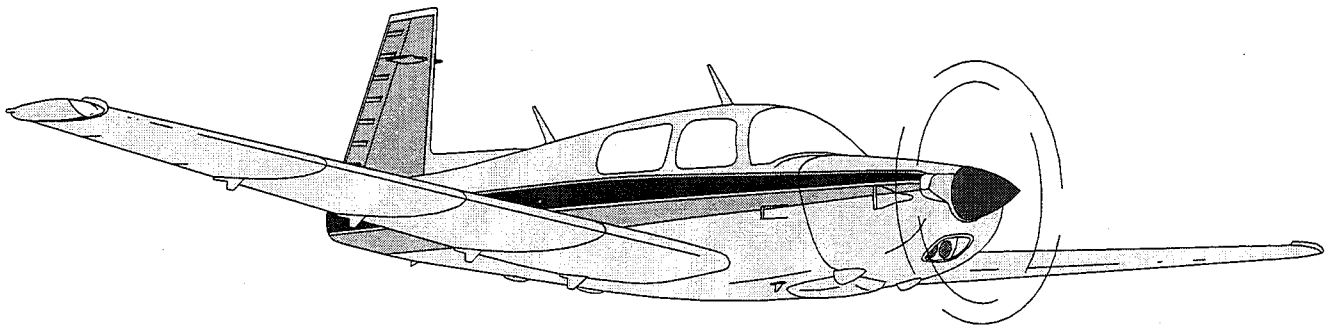


AC 20-5G

PLANE SENSE

General Aviation Information



U.S. Department of Transportation
Federal Aviation Administration

PLANE SENSE

General Aviation Information

**Reprinted
1996**

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Flight Standards Service

EDITORIAL NOTE:

1996

The following pages contain editorial updates:

Page i reflects the date of this reprint.

Pages iii, 41, and 42 contain updates to phone numbers and mailing addresses for obtaining publications.

Page 10, figure 2, contains an editorial correction to add the omitted name in signature block.

Page 36 contains an editorial change to the number of books contained in the Summary of Airworthiness Directives.

PREFACE

The Flight Standards Service of the Federal Aviation Administration (FAA) has published *Plane Sense*, to acquaint the owner or prospective owner with some fundamental information on the requirements of owning and operating a private airplane.

Anyone who is an aircraft owner, or seriously thinking of becoming one, should become familiar with Title 14, Code of Federal Regulations, referred to in this document as Federal Aviation Regulations (FAR's). Since the aviation picture is constantly changing, it is suggested that you contact your nearest FAA Flight Standards District Office (FSDO), where the personnel will be pleased to assist you with the latest requirements of private ownership.

Service Difficulty Reports, General Aviation Airworthiness Alerts, Airworthiness Directives, and Federal Aviation Regulations may be obtained by computer modem from FedWorld at (703) 321-3339. This bulletin board service is provided by the U.S. Department of Commerce, 24 hours a day, 7 days per week. For technical assistance regarding computer software and modem requirements for this service, contact the FedWorld help desk at (703) 487-4223 from 7:30 a.m. to 5 p.m. EDT, Monday through Friday.

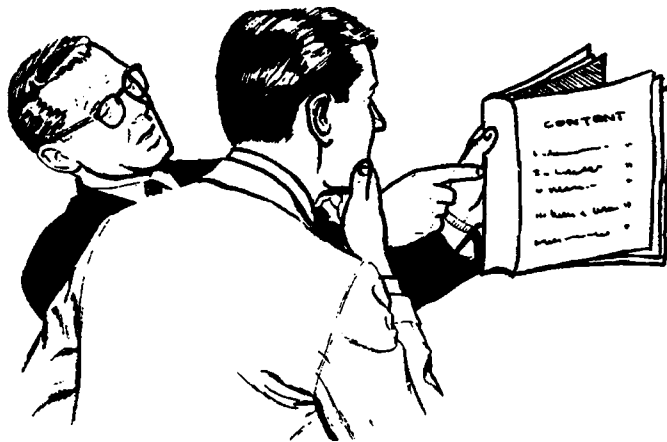
This publication may be obtained free of charge from:

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Ardmore East Business Center
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Landover, MD 20785

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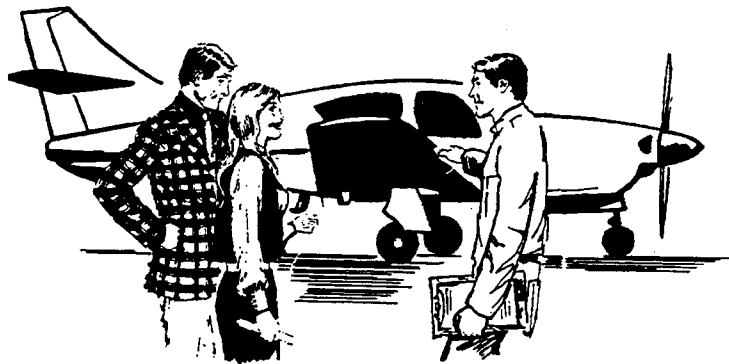
Federal Aviation Administration
Operations Support Branch, AFS-630
P.O. Box 25082
Oklahoma City, OK 73125

This advisory circular supersedes AC 20-5F, dated 1986.



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BUYING AN AIRCRAFT

When buying a used aircraft, it is wise to have the selected aircraft inspected by a qualified person or facility before you buy. The condition of the aircraft and the state of its maintenance records can be determined by persons familiar with the particular make and model. These should include an FAA certificated airframe and powerplant mechanic (A&P) or an approved repair station.

Questions Most Frequently Asked

1. Q. What is meant by a *clear title*?

- A.** A *clear title* is a term commonly used by aircraft title search companies to indicate there are no liens (chattel mortgage, security agreement, tax lien, artisan lien, etc.) in the FAA aircraft records. The Civil Aviation Registry does not perform title searches for the aviation public; however, the aircraft records contain all of the ownership and security documents that have been filed with the FAA.

The Civil Aviation Registry records acceptable security instruments. In addition, some states authorize artisan liens (mechanic liens) and these may also be recorded. Check your state's statutes. Federal liens against an owner (drug, repossession, etc.) may not show at all. Know your seller!

2. Q. How can I be sure that the aircraft has a *clear title*?

- A.** Either search the aircraft records yourself, or have it done by an attorney or qualified aircraft title search company. A list of title search companies qualified in aircraft title and records search can be found on AC Form 8050-55, Title Search Companies, available from the Civil Aviation Registry.

You wouldn't think of purchasing a house until you have the records examined. You should do the same when purchasing an aircraft, which also represents a substantial investment. Even though you are planning to purchase the aircraft from an established dealer, it makes good sense to determine the true status of the aircraft records before you buy. CAUTION: FAA registration cannot be used in any civil proceeding to establish proof of ownership!

There is no substitute for examining the aircraft records to secure a history of the ownership of the aircraft and to determine if there are any outstanding liens or mortgages. This procedure should help avoid a delay in registering an aircraft and the headaches many have suffered because they failed to take this one important step before purchasing their aircraft.

3. Q. Where do I go to search the records?

- A. Aircraft records maintained by the FAA are on file at the Mike Monroney Aeronautical Center, Registry Building, Oklahoma City, OK. Microfiche copies of aircraft records may be requested for review. For more information on how to order and costs, contact the Civil Aviation Registry at (405) 954-3116. There may be other records filed at federal, state, or local level that are not recorded with the FAA.

4. Q. What documents may I expect to receive with my new or used aircraft?

- A. (1) Bill of sale or conditional sales contract.
- (2) Either FAA Form 8100-2, Standard Airworthiness Certificate, or FAA Form 8130-7, Special Airworthiness Certificate.
- (3) Maintenance records containing the following information:
- (a) The total time in service of the airframe, each engine, and each propeller;
 - (b) The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance(s);
 - (c) The time since last overhaul of all items installed on the aircraft that are required to be overhauled on a specified time basis;
 - (d) The identification of the current inspection status of the aircraft, including the times since the last inspections required by the inspection program under which the aircraft and its appliances are maintained;
 - (e) The current status of applicable Airworthiness Directives (AD) including for each, the method of compliance, the AD number, and revision date. If the AD involves recurring action, the time and date when the next action is required; and
 - (f) A copy of current major alterations to each airframe, engine, propeller, rotor, and appliance.
- (4) Equipment list, and weight and balance data.
- (5) Airplane Flight Manual or Operating Limitations.

5. Q. What manuals should I receive with the aircraft?

- A.** The manufacturers produce owner's manuals, maintenance manuals, service letters and bulletins, and other technical data pertaining to their aircraft. These may be available from the previous owner, but are not required to be transferred to a new owner. If the service manuals are not available from the previous owner, they usually may be obtained from the aircraft manufacturer.

6. Q. What is the meaning of *airworthy*?

- A.** Two conditions must be met for a standard category aircraft to be considered *airworthy*. These conditions are:

- (1) The aircraft conforms to its type design (type certificate). Conformity to type design is considered attained when the required and proper components are installed and they are consistent with the drawings, specifications, and other data that are a part of the type certificate. Conformity would include applicable supplemental type certificates and field-approved alterations.
- (2) The aircraft is in condition for safe operation. This refers to the condition of the aircraft with relation to wear and deterioration.

7. Q. Does a current 100-hour or annual inspection mean that the aircraft is in *first class* condition?

- A.** No. It indicates only that the aircraft was found to be in airworthy condition at the time of inspection.

8. Q. Who is responsible for my aircraft's maintenance?

- A.** FAR Section 91.403 makes the owner/operator primarily responsible for maintaining the aircraft in an airworthy condition including compliance with Airworthiness Directives. The owner/operator is also responsible for ensuring that maintenance personnel make appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service. It is the responsibility of the owner and operator to have maintenance performed which may be required between scheduled inspections. Inoperative instruments or equipment that can be deferred under FAR Section 91.213(d)(2) shall be placarded and maintenance recorded in accordance with FAR Section 43.9.

9. Q. What should I look for before buying an amateur-built aircraft?

- A.** (1) Examine the Airworthiness Certificate and its Operating Limitations. The Airworthiness Certificate shall be a Special Airworthiness Certificate, which is used for all aircraft that fall under experimental status, and states for what purpose it was issued. (Refer to figure 7, page 19.) The Operating Limitations specify any operating restrictions that may apply to the aircraft.

- (2) Check the aircraft maintenance records of the airframe, engine, propeller, and accessories. Under FAR Sections 91.319(b) and 91.305, all initial flight operations of experimental aircraft may be limited to an assigned flight test area. This is called Phase I. The aircraft is flown in this designated area until it is shown to be controllable throughout its normal range of speeds and all maneuvers to be executed, and has not displayed any hazardous operating characteristics or design features. The required flight time may vary for each type of aircraft and is covered in the Operating Limitations.

After the flight time requirements are met, the owner/operator endorses the aircraft logbook with a statement certifying that the prescribed flight hours are completed and the aircraft complies with FAR Section 91.319(b). Phase I records are retained for the life of the aircraft. This concludes Phase I.

- (3) In Phase II, the FAA may prescribe Operating Limitations for an unlimited duration, as appropriate.
- (4) Before taking delivery of the aircraft, make a final prepurchase inspection. Make sure the Airworthiness Certificate, Operating Limitations, Aircraft Data Plate, Weight and Balance Papers, Aircraft Maintenance Records and any other required documents are with the aircraft. If the Airworthiness Certificate, Operating Limitations, and Aircraft Data Plate are surrendered to the FAA, by the original builder, you may not be able to recertificate the aircraft because you are not the builder.

It would be advisable to have someone familiar with the type of aircraft you are interested in, check the aircraft for workmanship, general construction integrity, and compliance with applicable FAR's. Contact the Manufacturing Inspection District Office (MIDO) or Flight Standards District Office (FSDO) serving your locale and ask to speak to an airworthiness inspector who can explain the requirements for experimental certification.

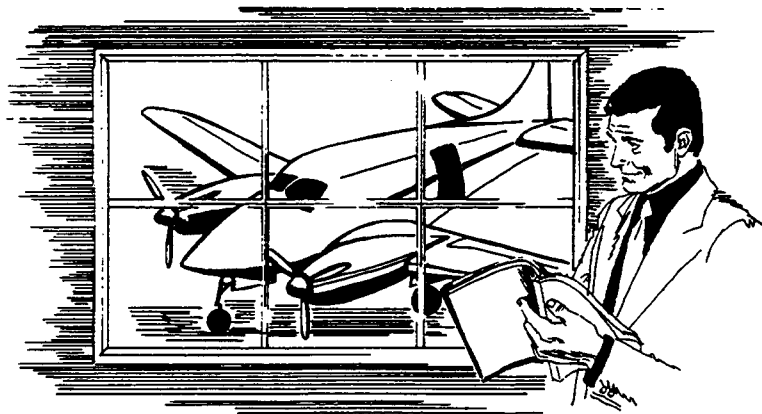
10. Q. Does a 100-hour or annual inspection requirement apply to an amateur-built aircraft?

- A. No. Amateur-built aircraft require a condition inspection within the previous 12 calendar months. This inspection requirement and those who are eligible to work on the aircraft are addressed in the Operating Limitations of that particular aircraft.

11. Q. What should I consider when buying a surplus military aircraft?

- A. Certain surplus military aircraft are not eligible for FAA certification in the STANDARD, RESTRICTED, or LIMITED classifications. Since no civil aircraft may be flown unless certificated, you should discuss this with the local Aviation Safety Inspector (ASI), who can advise you of eligible aircraft and certification procedures.

An additional source for advice on amateur-built and surplus military aircraft is the Experimental Aircraft Association (EAA), located in Oshkosh, Wisconsin, (414) 426-4800.



AIRCRAFT OWNER RESPONSIBILITIES

You, as an aircraft owner, are assuming responsibilities similar to those you have if you own an automobile. Owning an automobile usually means that you must register it in your state of residence and obtain license plates. As the registered owner of an aircraft, you are responsible for:

1. Having a current Airworthiness Certificate and Certificate of Aircraft Registration in your aircraft.
2. Maintaining your aircraft in an airworthy condition including compliance with all applicable AD's.
3. Assuring that maintenance is properly recorded.
4. Keeping abreast of current regulations concerning the operation and maintenance of your aircraft.
5. Notifying the Civil Aviation Registry immediately of any change of permanent mailing address, of the sale or export of your aircraft, or of the loss of your eligibility to register an aircraft. (Refer to FAR Section 47.41.)
6. Having a current FCC Radio Station License, if equipped with radios, including an Emergency Locator Transmitter (ELT).

Some states require that your automobile be inspected periodically to assure that it is in safe operating condition. Your aircraft shall be inspected in accordance with an annual inspection or with one of the inspection programs outlined in FAR Section 91.409, in order to maintain a current Airworthiness Certificate.

Some similarities between automobile and aircraft responsibilities are shown in the following chart:

Automobile/Airplane Comparison Chart

Responsibility	Automobile	Aircraft
Registration	Yes	Yes
Inspection	Yes	Yes
Compulsory insurance (most states)	Yes	No
Reporting of accidents	Yes	Yes
Required maintenance records	No	Yes
Maximum speed restrictions	Yes	Yes
Controlled maintenance	No	Yes

Accidents involving your aircraft must be reported to the National Transportation Safety Board (NTSB) as required by Title 49, Code of Federal Regulations, Part 830.

How to Report A Stolen Aircraft or Aircraft Equipment

1. Immediately notify the law enforcement agency having jurisdiction at the site of the theft, giving all available information. Request that such information be entered into the computer system of the National Crime Information Center of the FBI, and have the law officer taking the report notify the nearest FAA Flight Service Station (FSS). The Flight Service Station then issues a nationwide stolen aircraft alert. NOTE: Flight Service Stations are prohibited from issuing stolen aircraft alerts based solely on notification of theft by the owner — the report must be made by the law enforcement officer handling the case.
2. Notify the Aviation Crime Prevention Institute (ACPI), P.O. Box 30, Hagerstown, MD 21741, telephone 1-800-969-5473, fax (301) 791-9791, giving all available information. ACPI will send notices of the theft to appropriate industry contacts and embassies if applicable.
3. Notify your insurance company or agent, as appropriate. Additionally, owners/operators are encouraged to keep separate records of serial numbers for powerplants, avionics, and other installed items. Report these serial numbers at the same time the aircraft is reported stolen.

How to Report An Aircraft Accident

1. By the most expeditious means available, notify the nearest NTSB field office. NTSB field offices are listed in the telephone directories of major cities under U.S. Government.
2. Within 10 days after an accident, you should file a report with the NTSB on NTSB Form 6120.1 or NTSB Form 7120.2.
3. Flight Service Stations are also available to take accident information and forward it to the NTSB.



AIRCRAFT REGISTRATION

Eligible Registrants

An aircraft is eligible for registration in the United States only if it is owned by:

1. A U.S. citizen. A U.S. citizen by definition of FAR Section 47.2 can be an individual, or partnership where each individual is a U.S. citizen, or a corporation organized under the laws of the United States, State, Territory or possession of the United States of which the president and two-thirds of the board of directors are U.S. citizens and 75 percent of the voting interest is owned or controlled by U.S. citizens;
2. A resident alien;
3. A corporation (other than classified as a U.S. citizen), lawfully organized and doing business under the laws of the United States or of any state thereof, if the aircraft is based and used primarily in the United States; or
4. A government entity (federal, state, or local).

The aircraft may not be registered in a foreign country during the period it is registered in the United States.

If you purchase an aircraft, you must apply for a Certificate of Aircraft Registration from the Civil Aviation Registry before it may be operated. Do not depend on a bank, loan company, aircraft dealer, or anyone else to submit the application for registration. Do it yourself (in the name of the owner, not in the name of the bank or other mortgage holder).

You can help make sure your aircraft is properly registered by verifying that the aircraft description entered on the Aircraft Registration Application and Aircraft Bill of Sale (or equivalent) is identical to the data inscribed on the aircraft manufacturer's data plate. The data plate is permanently affixed to the aircraft fuselage by the manufacturer. This quick and simple check should help avoid delays in the issuance of the AC Form 8050-3, Certificate of Aircraft Registration.

Aircraft Previously Registered in the United States

You should immediately submit evidence of ownership, an Aircraft Registration Application, and a \$5 registration fee to the Federal Aviation Administration, Civil Aviation Registry, AFS-750, Mike Monroney Aeronautical Center, P.O. Box 25504, Oklahoma City, OK 73125. Fees required for aircraft registration may be paid by check or money order made payable to the Treasury of the United States.

A bill of sale form that meets the FAA's requirements for evidence of ownership is AC Form 8050-2, Aircraft Bill of Sale, which may be obtained from the nearest FSDO. The form includes an information and instruction sheet. If a conditional sales contract is the evidence of ownership, an additional \$5 fee is required for recording. For FAA registration, the bill of sale need not be notarized. (Refer to figure 1, page 9.)

The Aircraft Registration Application includes an information and instruction sheet. Submit the white and green copies to the Civil Aviation Registry; keep the pink copy in your aircraft as evidence of application for registration until you receive your Certificate of Aircraft Registration. The pink copy is good for 90 days and is only legal in the United States. If you plan to operate the aircraft out of the United States, you need to contact Civil Aviation Registry (405 954-3116) and obtain by fax a temporary authority. Registration certificates are issued to the person whose name is on the application. (Refer to figure 2, page 10.)

If there is a break in the chain of ownership of the aircraft, i.e., if it is not being purchased from the last registered owner, you are required to submit conveyances to complete the chain of ownership, through all intervening owners, including yourself, to the Civil Aviation Registry.

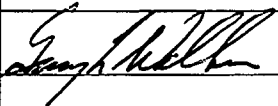
UNITED STATES OF AMERICA U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		FORM APPROVED OMB NO. 2120-0042	
AIRCRAFT BILL OF SALE			
FOR AND IN CONSIDERATION OF \$ 1.00 THE UNDERSIGNED OWNER(S) OF THE FULL LEGAL AND BENEFICIAL TITLE OF THE AIRCRAFT DES- CRIBED AS FOLLOWS:			
UNITED STATES REGISTRATION NUMBER N2033D			
AIRCRAFT MANUFACTURER & MODEL BEECH C-35			
AIRCRAFT SERIAL No. D-3384			
DOES THIS 20 DAY OF SEPT 1992 HEREBY SELL, GRANT, TRANSFER AND DELIVER ALL RIGHTS, TITLE, AND INTERESTS IN AND TO SUCH AIRCRAFT UNTO:			
Do Not Write In This Block FOR FAA USE ONLY			
PURCHASER	NAME AND ADDRESS <small>(IF INDIVIDUAL(S), GIVE LAST NAME, FIRST NAME, AND MIDDLE INITIAL.)</small> Kruse, Robert L. 1000 Beechcraft Rd Oklahoma City, OK 73100		
	DEALER CERTIFICATE NUMBER		
AND TO HIS EXECUTORS, ADMINISTRATORS, AND ASSIGNS TO HAVE AND TO HOLD SINGULARLY THE SAID AIRCRAFT FOREVER, AND WARRANTS THE TITLE THEREOF.			
IN TESTIMONY WHEREOF I HAVE SET MY HAND AND SEAL THIS 20 DAY OF SEPT 1992			
SELLER	NAME (S) OF SELLER <small>(TYPED OR PRINTED)</small>	SIGNATURE (S) <small>(IN INK) (IF EXECUTED FOR CO-OWNERSHIP, ALL MUST SIGN.)</small>	TITLE <small>(TYPED OR PRINTED)</small>
	Gary L. Walker		Owner
ACKNOWLEDGMENT (NOT REQUIRED FOR PURPOSES OF FAA RECORDING; HOWEVER, MAY BE REQUIRED BY LOCAL LAW FOR VALIDITY OF THE INSTRUMENT.)			
ORIGINAL: TO FAA			
<small>AC Form 8050-2 (9/92) (NSN 0052-00-629-0003) Supersedes Previous Edition</small>			

FIGURE 1.—AC Form 8050-2, Aircraft Bill of Sale.

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION-MIKE MONROE AERONAUTICAL CENTER AIRCRAFT REGISTRATION APPLICATION			CERT. ISSUE DATE
UNITED STATES REGISTRATION NUMBER N2631A			
AIRCRAFT MANUFACTURER & MODEL PIPER PA-22-135			
AIRCRAFT SERIAL No. 22-903			
FOR FAA USE ONLY			
TYPE OF REGISTRATION (Check one box) <input checked="" type="checkbox"/> 1. Individual <input type="checkbox"/> 2. Partnership <input type="checkbox"/> 3. Corporation <input type="checkbox"/> 4. Co-owner <input type="checkbox"/> 5. Gov't. <input type="checkbox"/> 8. Non-Citizen Corporation			
NAME OF APPLICANT (Person(s) shown on evidence of ownership. If individual, give last name, first name, and middle initial.) <div style="text-align: center; font-weight: bold;">WEAVER, MARTIN E.</div>			
TELEPHONE NUMBER: (405) 555-6471			
ADDRESS (Permanent mailing address for first applicant listed.) Number and street: _____ Rural Route: Rt 3 Box 17 P.O. Box: _____			
CITY <div style="text-align: center; font-weight: bold;">Tuttle</div>	STATE <div style="text-align: center; font-weight: bold;">OK</div>	ZIP CODE <div style="text-align: center; font-weight: bold;">73088</div>	
<input type="checkbox"/> CHECK HERE IF YOU ARE ONLY REPORTING A CHANGE OF ADDRESS ATTENTION! Read the following statement before signing this application. This portion MUST be completed. A false or dishonest answer to any question in this application may be grounds for punishment by fine and / or imprisonment (U.S. Code, Title 18, Sec. 1001).			
<u>CERTIFICATION</u>			
I/WE CERTIFY: (1) That the above aircraft is owned by the undersigned applicant, who is a citizen (including corporations) of the United States. (For voting trust, give name of trustee: _____), or: CHECK ONE AS APPROPRIATE: a. <input type="checkbox"/> A resident alien, with alien registration (Form 1-151 or Form 1-551) No. _____ b. <input type="checkbox"/> A non-citizen corporation organized and doing business under the laws of (state) _____ and said aircraft is based and primarily used in the United States. Records or flight hours are available for inspection at _____ (2) That the aircraft is not registered under the laws of any foreign country; and (3) That legal evidence of ownership is attached or has been filed with the Federal Aviation Administration.			
NOTE: If executed for co-ownership all applicants must sign. Use reverse side if necessary.			
TYPE OR PRINT NAME BELOW SIGNATURE			
EACH PART OF THIS APPLICATION MUST BE SIGNED IN INK.	SIGNATURE 	TITLE <div style="text-align: center; font-weight: bold;">Owner</div>	DATE <div style="text-align: center; font-weight: bold;">04-02-93</div>
	SIGNATURE Martin E. Weaver	TITLE	DATE
	SIGNATURE	TITLE	DATE
NOTE Pending receipt of the Certificate of Aircraft Registration, the aircraft may be operated for a period not in excess of 90 days, during which time the PINK copy of this application must be carried in the aircraft.			

AC Form 8050-1 (12/90) (0052-00-628-9007) Supersedes Previous Edition

FIGURE 2.—AC Form 8050-1, Aircraft Registration Application.

The Aircraft Registration Application may also be used to report a change of address by the aircraft owner. The FAA issues a revised certificate at no charge. If the certificate is lost, destroyed, or mutilated, a replacement certificate may be obtained at the written request of the holder. Send the request and \$2 (check or money order payable to the Treasury of the United States) to:

Federal Aviation Administration
Civil Aviation Registry, AFS-750
P.O. Box 25504
Oklahoma City, OK 73125

The request should describe the aircraft by make, model, serial number, and registration number. If operation of the aircraft is necessary before receipt of the duplicate certificate, the Civil Aviation Registry may, if requested, send temporary authority by fax. Include in your request your full address, fax number, and a telephone number where you can be reached.

Aircraft Previously Registered in a Foreign Country

If you are contemplating purchasing an aircraft registered in a foreign country, contact the local FSDO for certification assistance and the Civil Aviation Registry at (405) 954-3116 for registration assistance.

Certificate of Aircraft Registration

A Certificate of Aircraft Registration should be in the aircraft before an Airworthiness Certificate can be issued. (Refer to figure 3, page 12.) The Certificate of Aircraft Registration becomes invalid, as described in FAR Section 47.41 when:

1. The aircraft becomes registered under the laws of a foreign country;
2. The registration of the aircraft is canceled at the written request of the holder of the certificate;
3. The aircraft is totally destroyed or scrapped;
4. The holder of the certificate loses his or her U.S. citizenship or status as an alien without becoming a U.S. citizen;
5. The ownership of the aircraft is transferred; or
6. Thirty days have elapsed since the death of the holder of the certificate.

REGISTRATION NOT TRANSFERABLE			
UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION		This certificate must be in the air- craft when operated.	
NATIONALITY AND REGISTRATION MARKS N48SB		AIRCRAFT SERIAL NO. 9411	
MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT			
PITTS		SIS	
ICAO Aircraft Address Code: 51363722			
I S S U E D T O	JACOBS JANE M 520 BIPLANE LANE TECUMSEH, MI 49286	This certificate is issued for registra- tion purposes only and is not a certi- ficate of title. The Federal Avia- tion Administration does not determine rights of ownership as between private persons.	
It is certified that the above described aircraft has been entered on the register of the Federal Aviation Administration, United States of America, in accordance with the Convention on International Civil Aviation, signed December 7, 1944, and with the Federal Aviation Act of 1958, and regulations thereunder.			
DATE OF ISSUE JUNE 3, 1995		 ADMINISTRATOR	
U.S. Department of Transportation Federal Aviation Administration			

AC Form 8050-3(11/93) Supersedes previous editions.

EFFECT OF REGISTRATION

Section 5010) of the Federal Aviation Act of 1958(49 U.S.C. 1401) provides: "...Registration shall not be evidence of ownership of aircraft in any proceeding in which such ownership by a particular person is, or may be, in issue." THIS CERTIFICATE MUST BE SIGNED AND RETURNED BY THE REGISTERED OWNER WITHIN 60 DAYS WHEN IT IS NO LONGER IN EFFECT FOR ANY REASON UNDER 14 C.F.R. 47.41(a)(1) THROUGH (9).

a. ☐ Registration is cancelled at the request of the owner. (Also check and/or complete block, b, c, d, e, or f).

b. ☐ The aircraft is totally destroyed or scrapped.

c. ☐ United States citizenship has been lost, or the owner's status as a resident alien has changed, unless changed to that of a U.S. citizen.

d. ☐ Thirty days have elapsed since the death of the registered owner (estate representative should sign).

e. ☐ The aircraft is to be registered under the laws of a foreign country: (NAME OF FOREIGN COUNTRY) _____

f. ☐ The ownership of the aircraft is transferred to: (NAME) _____

(ADDRESS) _____

(CITY, STATE, ZIP) _____

(SIGNATURE) _____ (TITLE) _____ (DATE) _____

This certificate must be returned to:
AIRCRAFT REGISTRATION BRANCH, P.O. BOX 25504, OKLAHOMA CITY, OKLAHOMA 73125-0504

RETAIN THIS INFORMATION FOR FUTURE REFERENCE

CHANGE OF ADDRESS

Federal Aviation Regulations require that the registered owner of the aircraft shall report in writing within 30 days any change in permanent mailing address. A revised Certificate of Registration will be issued without charge. The Application for Registration AC Form 8050-1 must be used to report a change of address.

REPLACEMENT OF CERTIFICATE

If this certificate is lost, destroyed, or mutilated, a replacement may be obtained at the written request of the holder. Send your request and \$2.00 (check or money order made payable to United States Treasury) to:

Aircraft Registration Branch
P.O. Box 25504
Oklahoma City, Oklahoma 73125-0504

NOTE: All correspondence should include the registration "N" number, manufacturer, model, and serial number of the aircraft.

FIGURE 3.—AC Form 8050-3, Certificate of Aircraft Registration.

When an aircraft is destroyed, scrapped, or sold, the owner shall notify the FAA by filling in the back of the Certificate of Aircraft Registration and mailing it to:

Federal Aviation Administration
Civil Aviation Registry, AFS-750
P.O. Box 25504
Oklahoma City, OK 73125

The U.S. registration and nationality marking should be removed from an aircraft before it is delivered to a purchaser who is not eligible to register it in the United States. The endorsed Certificate of Aircraft Registration should be forwarded to the Civil Aviation Registry.

A dealer's aircraft registration certificate is another form of registration. It is valid only for flights within the United States by the manufacturer or a dealer for flight testing or demonstration for sale. It should be removed by the dealer when the aircraft is sold.

The certificate of registration serves as conclusive evidence of nationality but is not a title and is not evidence of ownership in any proceeding in which ownership is at issue.

Special Registration Number (N-Number)

A U.S. identification number of your choice may be reserved, if available. This number may not exceed five characters in addition to the prefix letter "N." All of the five characters may be numbers (N11111) or four numbers and one suffix letter (N1000A) or one to three numbers and or two suffix letters (N100AA) may be used.

In your written request, list up to five numbers in order of preference in the event the first choice is not available; also include a \$10 fee. If your request is approved, you are notified that the number has been reserved for 1 year. You are also informed that this reservation may be extended on a yearly basis for a \$10 renewal fee.

When you are ready to place the number on your aircraft, you should request permission by forwarding a complete description of the aircraft to the Civil Aviation Registry. Permission to place the special number on your aircraft is given on AC Form 8050-64, Assignment of Special Registration Numbers. When the number is placed on your aircraft, sign and return the original to the Civil Aviation Registry within 5 days. (Refer to figure 4, page 15.)

The duplicate of AC Form 8050-64, together with your Airworthiness Certificate, should be presented to an Aviation Safety Inspector within 10 days from placing the new registration number on your aircraft. The inspector will issue a revised Airworthiness Certificate showing the new registration number. The old registration certificate and the duplicate AC Form 8050-64 should be carried in the aircraft until the new registration certificate is received. (Refer to FAR Section 91.203(a)(1).)


Registration of Amateur-Built Aircraft

AC Form 8050-88, Identification Number Assignment and Registration of Amateur-Built Aircraft, is used by the Civil Aviation Registry to notify you of action taken on your application for registration of amateur-built aircraft. The reverse side of AC Form 8050-88 is an Affidavit of Ownership for an amateur-built aircraft. Complete the reverse side of AC Form 8050-88 when applying for registration of an amateur-built aircraft. You may designate an aircraft serial number of your choice at this time. This becomes the official aircraft serial number. (Refer to figure 5, page 16.) Submit AC Form 8050-88 along with AC Form 8050-1 to register your aircraft. If you have not reserved a special N number, the Civil Aviation Registry assigns a number at this time.

Additional Information

FAR Part 47 specifies the requirement for registering aircraft. For information concerning FAR Part 47 or any circumstances not discussed herein, contact the Federal Aviation Administration, Civil Aviation Registry, AFS-750, P.O. Box 25504, Oklahoma City, OK 73125. Telephone (405) 954-3116 for registration information and (405) 954-4206 for N-Number information.

State registration of aircraft is required in approximately 60 percent of the states. Check for your state's requirement.

 US Department of Transportation Federal Aviation Administration	ASSIGNMENT OF SPECIAL REGISTRATION NUMBERS		Special Registration Number N 48SB
	Aircraft Make and Model PITTS SIS		Present Registration Number
	Serial Number 9411		N 159F
JACOBS MARK W 520 BIPLANE LANE TECUMSEH, MI 49286		Issue Date 06-03-95 This is your authority to change the United States registration number on the above described aircraft to the special registration number shown. Carry duplicate of this form in the aircraft together with the old registration certificate as interim authority to operate the aircraft pending receipt of revised certificate of registration. Obtain revised certificate of airworthiness from your nearest Flight Standards field office. The latest FAA Form 8130-6, <i>Airworthiness Certificate</i> , is required. For Airworthiness on file is dated _____ The airworthiness certification and category _____	
SIGN AND RETURN THE ORIGINAL of this form to the FAA Aircraft Registry, within 5 days after placing the special registration number on the aircraft. A revised certificate will then be issued. Unless this authority is used and this office so notified, the authority for use of the special number will expire on _____			
CERTIFICATION: I certify that the special registration number was placed on the aircraft described above.			
Sign of Owner: _____ Title of Owner: _____ Date Placed on Aircraft _____		RETURN FORM TO: FAA Aircraft Registry P.O. Box 25504 Oklahoma City, Oklahoma 73125-4939	
BELOW THIS POINT FOR FAA USE ONLY			
1	FP	NAME	
2	NF		
ADDRESS			
FC	ZIP	EMP CODE	DATE

AC Form 8050-64 (12/87)

FIGURE 4.—AC Form 8050-64, Assignment of Special Registration Numbers.

AFFIDAVIT OF OWNERSHIP FOR AMATEUR-BUILT AIRCRAFT

U.S. Identification Number N48SB

Builder's Name MARK W. JACOBS

Model PITTS S1S

Serial Number (required) 9411

Class (airplane, rotorcraft, glider, etc.) AIRPLANE

Type of Engine Installed (reciprocating, turbopropeller, etc.)
RECIPROCATING

Number of Engines Installed ONE

Manufacturer, Model, and Serial Number of each Engine Installed
LYCOMING, IO-360-C1C, L-13154-51A

Built for Land or Water Operation LAND

Number of Seats ONE

The above described aircraft was built from parts and I am the owner.

Address 520 BIPLANE LANE

City TECUMSEH State MI Zip Code 49286

Telephone: Home (517) 555-9847 Work (517) 555-2827

Mark Jacobs
(Signature of Owner)

State of MICHIGAN

County of LENAWEE

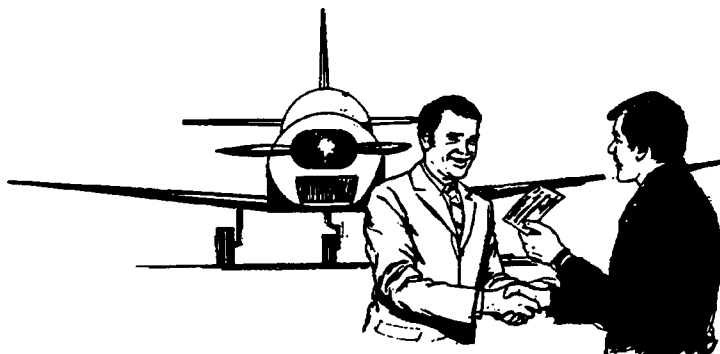
Subscribed and sworn to before me this 1st day of APRIL, 1995.

My commission expires 12-31-95.

Robert J. Dippi
ROBERT J. DIPPI
(Signature of Notary Public)

AC Form 8050-88 (6-87) (0052-00-559-000?) Supersedes previous edition

FIGURE 5.—AC Form 8050-88, (reverse side) Affidavit of Ownership for Amateur-Built Aircraft.



AIRWORTHINESS CERTIFICATE

An Airworthiness Certificate is issued by a representative of the FAA after the aircraft has been inspected, is found to meet the requirements of the FAR's, and is in condition for safe operation. The certificate must be displayed in the aircraft so that it is legible to passengers or crew whenever the aircraft is operated. The Airworthiness Certificate is transferred with the aircraft, except when it is sold to a foreign purchaser.

FAA Form 8100-2, Standard Airworthiness Certificate, is issued for aircraft type certificated in the normal, utility, acrobatic, commuter and transport categories, or for manned free balloons. An explanation of each term in the certificate follows: (Refer to figure 6, page 19.)

- Item 1. Nationality — The “N” indicates the aircraft is of U.S. registry. Registration Marks — the number, in this case 2631A, is the registration number assigned to the aircraft.
- Item 2. Indicates the manufacturer, make and model of the aircraft.
- Item 3. Indicates the manufacturer's serial number assigned to the aircraft, as noted on the aircraft data plate.
- Item 4. Indicates that the aircraft, in this case, shall be operated in accordance with the limitations specified for the NORMAL category.
- Item 5. Indicates the aircraft has been found to conform to its type certificate and is considered in condition for safe operation at the time of inspection and issuance of the certificate. Any exemptions from the applicable airworthiness standards are briefly noted here and the exemption number given. The word “NONE” is entered if no exemption exists.
- Item 6. Indicates the Airworthiness Certificate is in effect indefinitely, if the aircraft is maintained in accordance with FAR Parts 21, 43, and 91, and the aircraft is registered in the United States. Also included are the date the certificate was issued, the signature of the FAA representative, and his or her office identification.

A Standard Airworthiness Certificate remains in effect as long as the aircraft receives the required maintenance and is properly registered in the United States. Flight safety relies, in part, on the condition of the aircraft, which may be determined on inspection by mechanics, approved repair stations, or manufacturers who meet specific requirements of FAR Part 43.

The FAA Form 8130-7, Special Airworthiness Certificate, is issued for all aircraft certificated in other than the Standard classifications such as Experimental, Restricted, Limited, and Provisional.

An explanation of each term in the certificate follows as issued for an Experimental Amateur-Built Aircraft: (Refer to figure 7, page 19.)

Item A—Category/Designation — In this case, the category is Experimental.
Purpose—The purpose for issuing the certificate, in this case, “Operating Amateur-Built Aircraft.”

Item B—Manufacturer does not apply in this case.

Item C—Flight does not apply in this case.

Item D—Indicates the "N" number, builder, serial number, and model of the aircraft when certificated.

Item E—Indicates when the date of final inspection was completed and is considered in condition for safe operation and issuance of the certificate. Also shows when the Operating Limitations were issued, if they expire, and the signature of the FAA representative, and his or her office identification.

If you are interested in purchasing an aircraft classed as other than Standard, it is suggested that you contact the local FAA Manufacturing Inspection District Office (MIDO) or FSDO for an explanation of airworthiness requirements and the limitations of such a certificate.

An additional source for advice in such matters is the Experimental Aircraft Association (EAA), located in Oshkosh, Wisconsin, (414) 426-4800.

In summary, the FAA initially determines that your aircraft is in condition for safe operation and conforms to type design, then issues an Airworthiness Certificate.

Advisory Circular 21-12, Application for U.S. Airworthiness Certificate, and Advisory Circular 20-27, Certification and Operation of Amateur-Built Aircraft, provide additional information.

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION STANDARD AIRWORTHINESS CERTIFICATE			
1 NATIONALITY AND REGISTRATION MARKS N2631A	2 MANUFACTURER AND MODEL PIPER PA-22-135	3 AIRCRAFT SERIAL NUMBER 22-903	4 CATEGORY NORMAL
5 AUTHORITY AND BASIS FOR ISSUANCE This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein. Exceptions: NONE			
6 TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.			
DATE OF ISSUANCE 08-10-95	FAA REPRESENTATIVE <i>Marion W. Williams</i> MARION W. WILLIAMS	DESIGNATION NUMBER SW-FSDO-OKC	
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.			
FAA Form 8100-2 (8-82)		GPO 892-804	

FIGURE 6.—FAA Form 8100-2, Standard Airworthiness Certificate.

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE			
A	CATEGORY/DESIGNATION EXPERIMENTAL		
	PURPOSE OPERATING AMATEUR-BUILT AIRCRAFT		
B	MANU- FACTURER	NAME N/A	
		ADDRESS N/A	
C	FLIGHT	FROM N/A	
		TO N/A	
D	N- 48SB		SERIAL NO. 9411
	BUILDER MARK W. JACOBS		MODEL PITTS S1S
E	DATE OF ISSUANCE 04-01-95		EXPIRY UNLIMITED
	OPERATING LIMITATIONS DATED 04-01-95		ARE A PART OF THIS CERTIFICATE
	SIGNATURE OF FAA REPRESENTATIVE <i>Darrel A. Freeman</i>		DESIGNATION OR OFFICE NO. OKC-MIDO-41
Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.			
FAA FORM 8130-7 (10/82)		SEE REVERSE SIDE	

FIGURE 7.—FAA Form 8130-7, Special Airworthiness Certificate (pink).



AIRCRAFT MAINTENANCE

Maintenance means the preservation, inspection, overhaul, and repair of aircraft, including the replacement of parts. A PROPERLY MAINTAINED AIRCRAFT IS A SAFE AIRCRAFT.

The purpose of maintenance is to ensure that the aircraft remains airworthy throughout its operational life.

Although maintenance requirements vary for different types of aircraft, experience shows that most aircraft need some type of preventive maintenance every 25 hours or less of flying time, and minor maintenance at least every 100 hours. This is influenced by the kind of operation, climatic conditions, storage facilities, age, and construction of the aircraft. Maintenance manuals are available from aircraft manufacturers or commercial vendors with revisions for maintaining your aircraft.

Inspections

FAR Section 91.403 places primary responsibility on the owner or operator for maintaining an aircraft in an airworthy condition. Certain inspections shall be performed on your aircraft, and you must maintain the airworthiness of the aircraft between required inspections by having any defects corrected.

FAR 91 Subpart E requires the inspection of all civil aircraft at specific intervals to determine the overall condition. The interval depends generally upon the type of operations in which the aircraft is engaged. Some aircraft need to be inspected at least once every 12 calendar months, while inspection is required for others after each 100 hours of operation. In other instances, an aircraft may be inspected in accordance with an inspection system set up to provide for total inspection of the aircraft on the basis of calendar time, time in service, number of system operations, or any combination of these.

All inspections shall follow the Manufacturer Maintenance Manual including the Instructions for Continued Airworthiness concerning inspection intervals, parts replacement, and life-limited items as applicable to your aircraft.

To determine the specific inspection requirements and rules for the performance of inspections, refer to FAR 91 Subpart E which prescribes the requirements for various types of operations.

Annual Inspection. Any reciprocating-engine powered or single-engine-turbojet/turbo propeller powered small aircraft (12,500 pounds and under) flown for business or pleasure is required to be inspected at least annually by an FAA certificated A&P mechanic holding an Inspection Authorization (IA), or an FAA certificated repair station that is appropriately rated, or the manufacturer of the aircraft. The aircraft may not be operated unless the annual inspection has been performed within the preceding 12 calendar months. A period of 12 calendar months extends from any day of a month to the last day of the same month the following year. However, an aircraft with the annual inspection overdue may be operated under a special flight permit issued by the FAA for the purpose of flying the aircraft to a location where the annual inspection can be performed.

100-Hour Inspection. Reciprocating-engine powered and single-engine-turboprop/turbojet powered aircraft (12,500 pounds and under) used to carry passengers for hire or used for flight instruction, shall be inspected within each 100 hours of time in service by an FAA certificated A&P mechanic, an FAA certificated repair station that is appropriately rated, or the aircraft manufacturer. An annual inspection is acceptable as a 100-hour inspection, but the reverse is not true.

Other Inspection Programs. The annual and 100-hour inspection requirements do not apply to large (over 12,500 pounds) airplanes, turbojet, or turbopropeller-powered multiengine airplanes, or to airplanes for which the owner or operator complies with the progressive inspection requirements. Details of these requirements may be determined by reference to FAR Section 43.11, FAR 91 Subpart E, and by inquiry at the local FSDO.

Altimeter System Inspection. FAR Section 91.411 requires that the altimeter, encoding altimeter, and related system be tested and inspected in the preceding 24 months before operated in controlled airspace under IFR.

Transponder Inspection. FAR Section 91.413 requires that before a transponder can be used under FAR Section 91.215(a), it shall be tested and inspected within the preceding 24 months.

Preflight Inspection. The FAR's require a pilot to conduct a thorough preflight inspection before every flight to ensure that the aircraft is safe for flight.

Preventive Maintenance

The FAR's list approximately two dozen relatively uncomplicated repairs and procedures defined as preventive maintenance. Certificated pilots, excluding student and recreational pilots, may perform preventive maintenance on any aircraft owned or operated by them that are not used in air carrier service. These preventive maintenance operations are listed in FAR Part 43, Appendix A, under Major Alterations, Major Repair, and Preventive Maintenance. FAR Part 43 also contains other rules to be followed in the maintenance of aircraft.

Repairs and Alterations

All repairs and alterations of standard airworthiness certificated aircraft are classed as either major or minor. FAR Part 43, Appendix A, describes the alterations and repairs considered major. Major repairs or major alterations shall be approved for return to service on FAA Form 337, Major Repairs and Major Alterations, by an appropriately rated certificated repair station, an FAA certificated A&P mechanic holding an Inspection Authorization, or a representative of the Administrator. Minor repairs and minor alterations may be approved for return to service with a proper entry in the maintenance records by an FAA certificated A&P mechanic or an appropriately certificated repair station.

Modifications of experimental aircraft require the notification of your local FSDO.



AIRCRAFT MAINTENANCE RECORDS

(FAR Sections 91.405, 91.409, 91.417)

An aircraft owner is required to keep aircraft maintenance records on the airframe, engine, prop, and accessories which contain a description of the work performed on the aircraft, the date the work was completed, the signature, kind of FAA certificate, and certificate number of the person approving the aircraft for return to service. The owner of an aircraft shall also ensure that maintenance personnel make appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service. The owner's aircraft records shall also contain the inspections required pursuant to FAR Section 91.409.

Proper management of aircraft operations begins with a good system of maintenance records. A properly completed maintenance record provides the information needed by the owner/operator and maintenance personnel to determine when scheduled inspections and maintenance are to be performed.

1. There shall be records of maintenance and of 100-hour, annual, progressive, and other required or approved inspections for each aircraft, including the airframe, each engine, propeller, rotor, and appliance. These records may be discarded when the work is repeated or superseded by other work, or 1 year after the work is performed.
2. There shall also be records of:
 - a. The total time in service of the airframe, each engine, and each propeller;
 - b. The current status of life-limited parts of each airframe, engine, propeller, rotor, and appliance;
 - c. The time since the last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis;

- d. The identification of the current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained;
- e. The current status of applicable AD's including, for each, the method of compliance, the AD number, and revision date. If the AD involves recurring action, the time and date when the next action is required; and
- f. A copy of the current major alterations to each airframe, engine, propeller, and appliance.

These records are retained by the owner/operator and transferred with the aircraft when it is sold.

Keep in mind that as a result of repairs or alterations, such as replacing radios and installing speed kits, amendments may be necessary to the weight and balance report, equipment list, flight manual, etc.

Entries into the Aircraft Maintenance Records

1. FAR Section 43.9 entries.

Any person who maintains, rebuilds, or alters an aircraft, airframe, aircraft engine, propeller, or appliance shall make an entry containing:

- a. A description of the work, or some reference to data acceptable to the FAA;
- b. The date the work was completed;
- c. The name of the person who performed the work; and
- d. If the work is approved for return to service, the signature, certificate number, and kind of certificate held by the person approving the aircraft for return to service.

2. FAR Section 43.11 entries.

When a mechanic approves or disapproves an aircraft for return to service for an annual, 100-hour, or progressive inspection, an entry shall be made including:

- a. Aircraft time in service;
- b. The type of inspection;
- c. The date of inspection;
- d. The signature, certificate number, and kind of certificate held by the person approving or disapproving the aircraft for return to service; and
- e. A signed and dated listing of discrepancies and unairworthy items.

3. FAR Section 91. 409(e) — Airplanes.

Inspection entries for FAR Section 91. 409(e). Airplanes — those over 12,500 pounds, turbojet, or turbopropeller-powered multiengine airplanes are made according to FAR Section 43.9 and they shall include:

- a. The kind of inspection performed;
- b. A statement by the mechanic that it was performed in accordance with the instructions and the procedures for the kind of inspection program selected by the owner; and
- c. A statement that a signed and dated list of any defects found during the inspection was given to the owner, if the aircraft is not approved for return to service.

4. FAA Form 337, Major Repairs and Major Alterations.

A mechanic who performs a major repair or major alteration shall record it on FAA Form 337 and have the work inspected and approved by a mechanic who holds an Inspection Authorization. A signed copy shall be given to the owner and another copy sent to the local FSDO within 48 hours after the aircraft has been approved for return to service. However, when a major repair is done by a certificated repair station, the customer's work order may be used and a release given as outlined in Appendix B of FAR Part 43. (Refer to figure 8, page 28.)

5. FAR Section 91.411 - Altimeter and Static Tests.

FAR Section 91.411 requires that every airplane or helicopter operated in controlled airspace under IFR conditions have each static pressure system, each altimeter, and each automatic pressure altitude reporting system tested and inspected every 24 calendar months. The mechanic shall enter into the records:

- a. A description of the work;
- b. The maximum altitude to which the altimeter was tested; and
- c. The date and signature of the person approving the aircraft for return to service.

 US Department of Transportation Federal Aviation Administration		MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)		Form Approved OMB No. 2120-0020 For FAA Use Only Office Identification	
INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).					
1. Aircraft	Make			Model	
	Serial No.			Nationality and Registration Mark	
2. Owner	Name (As shown on registration certificate)			Address (As shown on registration certificate)	
3. For FAA Use Only					
4. Unit Identification				5. Type	
Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	~~~~~ (As described in Item 1 above) ~~~~~				
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				
6. Conformity Statement					
A. Agency's Name and Address			B. Kind of Agency		C. Certificate No.
			<input type="checkbox"/> U.S. Certificated Mechanic		
			<input type="checkbox"/> Foreign Certificated Mechanic		
			<input type="checkbox"/> Certificated Repair Station		
			<input type="checkbox"/> Manufacturer		
D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.					
Date			Signature of Authorized Individual		
7. Approval for Return To Service					
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is <input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED					
BY	FAA Fit. Standards Inspector	Manufacturer	Inspection Authorization	Other (Specify)	
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group		
Date of Approval or Rejection		Certificate or Designation No.	Signature of Authorized Individual		

FAA Form 337 (12-88)

FIGURE 8.—FAA Form 337, Major Repair and Alteration. Description of work accomplished on reverse side.

6. FAR Section 91.413 - Transponder Tests.

FAR Section 91.413 requires that anyone operating an Air Traffic Control (ATC) transponder specified in FAR Section 91.215(a) have it tested and inspected every 24 calendar months. The mechanic shall enter into the records:

- (a) A description of the work.
- (b) The date and signature of the person approving the airplane for return to service.

7. FAR Section 91.207 - Emergency Locator Transmitters (ELT).

FAR Section 91.207 requires that no person may operate a U.S. registered civil airplane unless there is attached to the airplane a personal type or an automatic type emergency locator transmitter that is in operable condition and meets applicable requirements of TSO-C91. New ELT installations after June 21, 1995, must meet TSO C90A.

Batteries used in the emergency locator transmitters shall be replaced when:

- (a) The transmitter has been in use for more than 1 cumulative hour or,
- (b) 50 percent of their useful life has expired.

Expiration date for replacing the battery shall be legibly marked on the outside of the transmitter and entered in the aircraft maintenance records.

Additional Information on Aircraft Maintenance Records

Additional information relating to aircraft maintenance records can be obtained from:

FAR Part 39	Airworthiness Directives
FAR Part 43	Maintenance, Preventive Maintenance, and Alteration
FAR Part 91	General Operating and Flight Rules
Advisory Circular 43-9	Maintenance Records: General Aviation Aircraft

These publications are available from U.S. Government Printing Office bookstores located throughout the United States. For more information on ordering these publications, refer to the section titled "Obtaining FAA Publications and Records" on page 41. They also are available from commercial vendors. Your local FSDO can help you establish your aircraft maintenance program and the necessary maintenance records.

Maintenance and record keeping similarities between type certificated aircraft and amateur-built aircraft are shown in the following chart:

Type Certificated/Amateur-Built Airplane Comparison Chart

Responsibility	Type Certificated Aircraft	Amateur-Built Aircraft
Registration	Yes	Yes
Annual inspection	Yes	Yes ¹
100-hour inspection	Yes ²	No ³
Compulsory insurance (most states)	No	No
Required maintenance records	Yes	Yes
Altimeter and static tests (IFR controlled airspace)	Yes	Yes
Transponder tests (if required by FAR's)	Yes	Yes
Emergency locator transmitter (ELT) (Except single seat aircraft)	Yes	Yes
Reporting of accidents	Yes	Yes

All record keeping is primarily the responsibility of the aircraft owner or operator. The A&P mechanic is responsible for the work.

¹ Condition Inspection for Amateur-Built Aircraft.

²Only when aircraft is used for commercial operations.

³100-Hour Inspection same as Condition Inspection.



SPECIAL FLIGHT PERMITS

(FAR Section 21.197)

A special flight permit is a Special Airworthiness Certificate issued for an aircraft that may not currently meet applicable airworthiness requirements but is safe for a specific flight. (Refer to figure 9, page 32.) Before the permit is issued, an FAA inspector may personally inspect the aircraft or require it to be inspected by an FAA certificated A&P mechanic or repair station to determine its safety for the intended flight. The inspection is then recorded in the aircraft records.

Special flight permits are issued to allow the aircraft to be flown to a base where repairs, alterations, or maintenance can be performed; for delivering or exporting the aircraft; or for evacuating an aircraft from an area of impending danger. They may also be issued to allow the operation of an overweight aircraft for flight beyond its normal range over water or land areas where adequate landing facilities or fuel are not available.

Should you have an occasion to need a special flight permit, assistance and the necessary forms can be obtained from the local FSDO. Refer to figure 10, page 33 for a sample of the special flight permit application form, the reverse side of FAA Form 8130-6, Application for Airworthiness Certificate.

VI. PRODUCTION FLIGHT TESTING	A. MANUFACTURER:		
	NAME		ADDRESS
	B. PRODUCTION BASIS (Check applicable item)		
	<input type="checkbox"/> PRODUCTION CERTIFICATE (Give production certificate number) <input type="checkbox"/> TYPE CERTIFICATE ONLY <input type="checkbox"/> APPROVED PRODUCTION INSPECTION SYSTEM		
C. GIVE QUANTITY OF CERTIFICATES REQUIRED FOR OPERATING NEEDS →			
DATE OF APPLICATION		NAME AND TITLE (Print or type)	SIGNATURE
VII. SPECIAL FLIGHT PERMIT PURPOSES OTHER THAN PRODUCTION FLIGHT TEST	A. DESCRIPTION OF AIRCRAFT		
	REGISTERED OWNER		ADDRESS
	JOHNNY W. MALONE		1012 CESSNA AVE., SHAWNEE, OKLAHOMA 74852
	BUILDER (Make)		MODEL
	CESSNA		C-182L
	SERIAL NUMBER		REGISTRATION MARK
	182-582672		N42565
	B. DESCRIPTION OF FLIGHT		
	FROM		TO
	SHAWNEE, OKLAHOMA		DOWNTOWN AIRPARK, OKLAHOMA CITY, OKLAHOMA
	VIA		DEPARTURE DATE
	DIRECT		03-22-95
DURATION			
10 DAYS			
C. CREW REQUIRED TO OPERATE THE AIRCRAFT AND ITS EQUIPMENT.			
<input checked="" type="checkbox"/> PILOT <input type="checkbox"/> CO-PILOT <input type="checkbox"/> NAVIGATOR <input type="checkbox"/> OTHER (Specify)			
D. THE AIRCRAFT DOES NOT MEET THE APPLICABLE AIRWORTHINESS REQUIREMENTS AS FOLLOWS			
ANNUAL INSPECTION			
E. THE FOLLOWING RESTRICTIONS ARE CONSIDERED NECESSARY FOR SAFE OPERATION (Use attachment if necessary)			
AIRCRAFT INSPECTION AND LOGBOOK ENTRY			
F. CERTIFICATION — I hereby certify that I am the registered owner (or his agent) of the aircraft described above; that the aircraft is registered in the Federal Aviation Administration in accordance with Section 501 of the Federal Aviation Act of 1958, and applicable Federal Aviation Regulations; and that the aircraft has been inspected and is airworthy for the flight described.			
DATE		NAME AND TITLE (Print or type)	
03-22-95		JOHNNY W. MALONE	
		SIGNATURE <i>Johnny W. Malone</i>	
VIII. AIRWORTHINESS DOCUMENTATION (FAA use only)	A. Operating Limitations and Markings in Compliance with FAR 91.31 as Applicable		G. Statement of Conformity, FAA Form 8130-9 (Attach when required)
	B. Current Operating Limitations Attached		H. Foreign Airworthiness Certification for Import Aircraft (Attach when required)
	C. Data, Drawings, Photographs, etc. (Attach when required)		I. Previous Airworthiness Certificate Issued in Accordance with
	D. Current Weight and Balance Information Available in Aircraft		FAR _____ CAR _____ (Original Attached)
	E. Major Repair and Alteration, FAA Form 337 (Attach when required)		J. Current Airworthiness Certificate Issued in Accordance with
	F. This Inspection Recorded in Aircraft Records		FAR _____ (Copy attached)

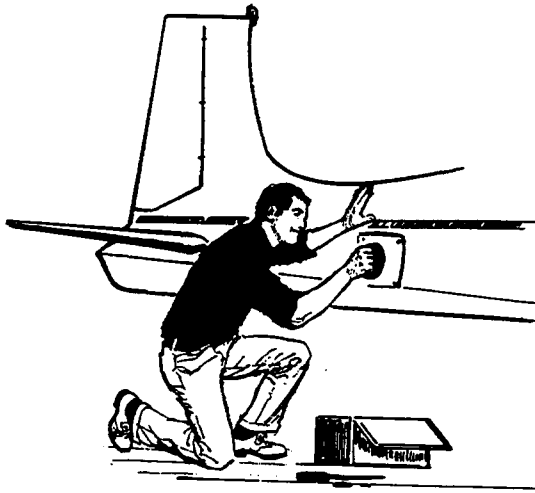
FIGURE 9.—FAA Form 8130-6, Application for Airworthiness Certificate, (reverse side)
Application for Special Flight Permit.

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION SPECIAL AIRWORTHINESS CERTIFICATE		
A	CATEGORY/DESIGNATION SPECIAL FLIGHT PERMIT	
	PURPOSE MAINTENANCE	
B	MANU-FACTURER	NAME N/A
		ADDRESS N/A
C	FLIGHT	FROM SHAWNEE, OKLAHOMA
		TO DOWNTOWN AIRPARK, OKLAHOMA CITY, OK
D	N- 42565	SERIAL NO. 182-582672
	BUILDER CESSNA	MODEL C-182L
E	DATE OF ISSUANCE 03-22-95	EXPIRY 04-01-95
	OPERATING LIMITATIONS DATED 03-22-95 ARE A PART OF THIS CERTIFICATE	
	SIGNATURE OF FAA REPRESENTATIVE T.A. HOLLARS <i>T.A. Hollars</i>	DESIGNATION OR OFFICE NO. SW-FSDO-OKC

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA FORM 8130-7 (10/82) SEE REVERSE SIDE

FIGURE 10.—FAA Form 8130-7, Special Airworthiness Certificate, Special Flight Permit.
(pink)



AIRWORTHINESS DIRECTIVES

(FAR Part 39)

A primary safety function of the FAA is to require correction of unsafe conditions found in an aircraft, aircraft engine, propeller, or appliance when such conditions exist or are likely to exist or develop in other products of the same design. The unsafe conditions can exist because of a design defect, maintenance, or other causes. FAR Part 39, Airworthiness Directives, (AD) defines the authority and responsibility of the Administrator for requiring the necessary corrective action. AD's are used to notify aircraft owners and other interested persons of unsafe conditions and to specify the conditions under which the product may continue to be operated.

AD's may be divided into two categories:

1. Those of an emergency nature requiring immediate compliance prior to further flight, and
2. Those of a less urgent nature requiring compliance within a relatively longer period of time.

AD's are FAR's and shall be complied with, unless specific exemption is granted. It is the aircraft owner's or operator's responsibility to ensure compliance with all pertinent AD's. This includes those AD's that require recurrent or continuing action. For example, an AD may require a repetitive inspection each 50 hours of operation, meaning the particular inspection shall be accomplished and recorded every 50 hours of time in service. Owner/operators are reminded there is no provision to overfly the maximum hour requirement of an AD unless it is specifically written into the AD. To help you determine if an AD applies to an amateur-built aircraft, contact your local FSDO.

FAR Section 91.417 requires a record to be maintained that shows the current status of applicable AD's, including the method of compliance, the AD number and revision date, if recurring, the time and date when due again, the signature, kind of certificate, and certificate number of the repair station or mechanic who performed the work. For ready reference, many aircraft owners have a chronological listing of the pertinent AD's in the back of their aircraft and engine records. (Refer to figure 11, page 36.)

The Summary of Airworthiness Directives contains all the valid AD's previously published. The AD's are divided into two books: Small Aircraft under 12,500 pounds maximum certificated takeoff weight and Rotorcraft; and Large Aircraft over 12,500 pounds. The current AD's are published in a biweekly supplement. These books and the biweekly supplement are available for purchase in paper copy, microfiche, or electronic format. The latest AD's are available free on FedWorld.

Advisory Circular 39-7, Airworthiness Directives, provides additional guidance and information for owners and operators of their responsibilities for complying with and recording AD's.

For more information contact the Engineering and Manufacturing Branch, AFS-610, in Oklahoma City, OK, telephone (405) 954-4103 or fax (405) 954-4104.

AIRWORTHINESS DIRECTIVE COMPLIANCE RECORD							
AIRCRAFT <u>PA-22-135</u>		<u>N 2631A</u>		<u>S/N 22-903</u>			
ENGINE <u>Lycoming 0-290-D2</u>				<u>S/N 4563-21</u>			
PROPELLER <u>Sensenich M 76AM2</u>				<u>S/N 6662</u>			
AD NUM. & AMEND. NUM.	REV. NUM. & DATE	SUBJECT	DATE/HOURS AT COMP.	METHOD OF COMP.	O R E C U R R I N G M I N I M I N G	COMP. DUE DATE/HR S	AUTHORIZED SIGNATURE & NUMBER
76-07-12 39-3024	R-1 8-30-77	Bendix ignition switch	11-11-94 1800TT	Operational check and inspection	X	1900TT	<i>Phil Lomax</i> A&P 00000000
93-18-03 39-8688	Original 10-29-93	One-piece venturi	3-17-95 1850TT	Installed one-piece venturi Carb S/N BR-549	X		<i>Phil Lomax</i> A&P 00000000

FIGURE 11.—Airworthiness Directive Compliance Record (suggested format).



THE SERVICE DIFFICULTY PROGRAM

The Service Difficulty Program provides for the exchange of service experience with aircraft and aircraft products to aid in the detection of mechanical problems. The incentive for early detection is to get a jump on corrective actions and ultimate solutions, thereby minimizing the impact of equipment failure on safety.

Aircraft owners, pilots, and mechanics are urged to report promptly all service problems, using FAA Form 8010-4, Malfunction or Defect Report, or any other form or format. Copies of these forms may be obtained free from any FSDO. No postage is required. (Refer to figures 12 and 13, page 38.)

Each problem reported contributes to the improvement of aviation safety through the identification of a potential problem area and the alerting of other persons to it. This focusing of attention on a problem has led to improvements in the design and maintainability of aircraft and aircraft products.

How does reporting a problem help you? By pooling everyone's knowledge about a situation, we can detect mechanical problems early enough to correct them before they might possibly result in accidents/incidents. This should make flying safer, more enjoyable, and certainly less expensive.

Advisory Circular 20-109, Service Difficulty Program (General Aviation), contains additional information on this program.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION				OPER. Control No.	8. Comments: (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)	DISTRICT OFFICE	OTHER	TAA	MFG	AIR TAD	MICR	OPER	REP STA	SUBMITTED BY	TELEPHONE NUMBER
MALFUNCTION OR DEFECT REPORT				ATA Code											
1. A/C Reg. No. N- 2033D															
Enter pertinent data		MANUFACTURER	MODEL/SERIES	SERIAL NUMBER											
2		AIRCRAFT	Beechcraft	C-35	D-3384										
3		POWERPLANT	Continental	E-225	30904										
4		PROPELLER	Hartzell	HCA2U20 4A1	AK-710										
5. SPECIFIC PART (or component) CAUSING TROUBLE															
Part Name		MFG. Model or Part No.	Serial No.	Part Defect Location											
Tube-fuel pressure		35-924126	N/A	B-nut carb end											
6. APPLIANCE COMPONENT (Assembly that includes part)															
Comp. Appl. Name		Manufacturer	Model or Part No.	Serial Number											
N/A		N/A	N/A	N/A											
Part TT		Part TSO	Part Condition	7. Date Sub.											
4100		N/A	Cracked	12-12-94											
Optional Information:															
Check a box below, if this report is related to an aircraft															
<input type="checkbox"/> Accident: Date _____						<input type="checkbox"/> Incident: Date _____									

FAA Form 8010-4 (110-92) SUPERSEDES PREVIOUS EDITIONS

FIGURE 12.—FAA Form 8010-4, Malfunction or Defect Report.

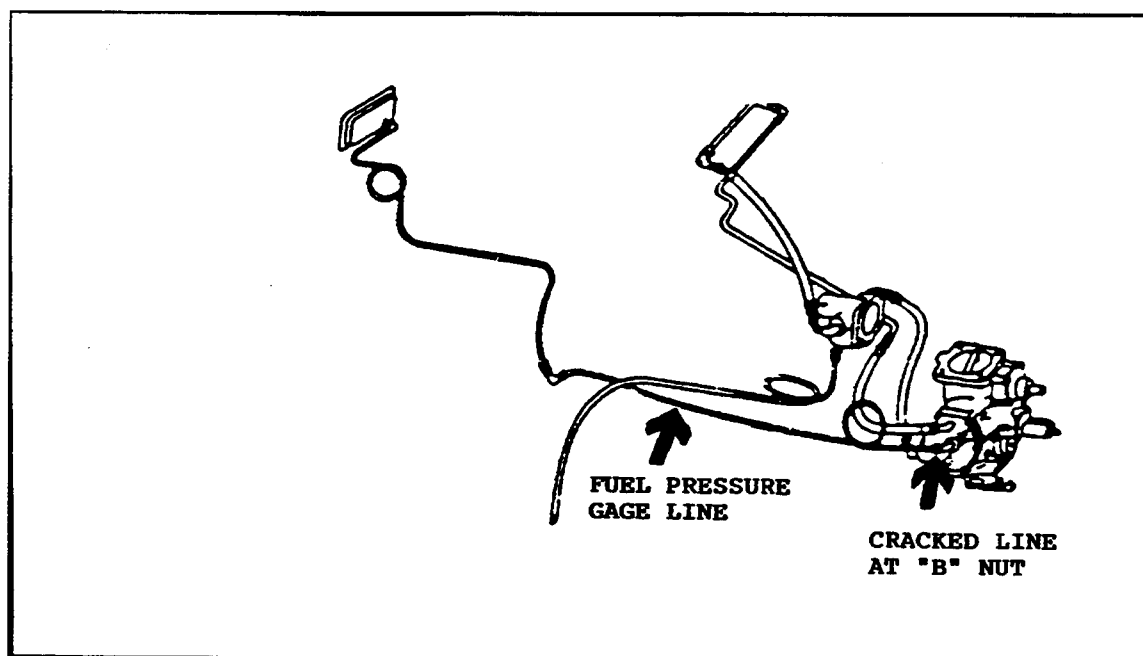
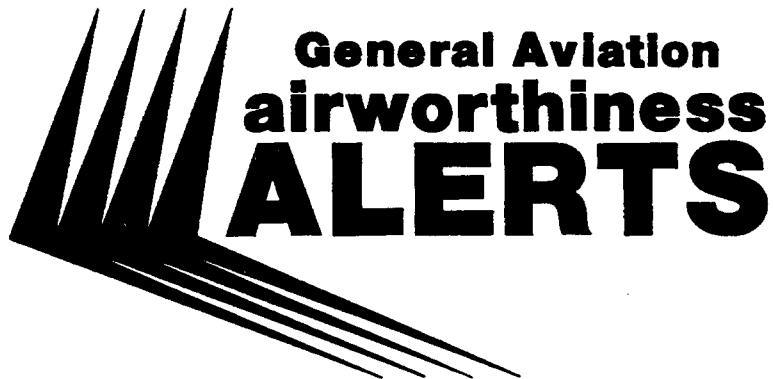


FIGURE 13.—Attachment FAA Form 8010-4, Malfunction or Defect Report.



AIRWORTHINESS ALERTS

The FAA publishes Advisory Circular 43-16, General Aviation Airworthiness Alerts, monthly to provide the aviation community with a means for interchanging service difficulty information. The articles contained in the Alerts are derived from the Malfunction or Defect Reports submitted by aircraft owners, pilots, mechanics, repair stations, and air taxi operators.

Maintenance specialists review the reports and select pertinent items for publication in the Alerts. The information is brief and advisory; compliance is not mandatory. It is, however, intended to alert you to service experience and, when pertinent, direct your attention to the manufacturer's recommended corrective action.

The Alerts are distributed free of charge on a subscription basis. To subscribe, fill out the order form on page 40 and mail to the address indicated on the form. Copies of the Alerts are also available at your local FSDO.

SUBSCRIPTION FORM

ADVISORY CIRCULAR (AC) 43-16, GENERAL AVIATION AIRWORTHINESS ALERTS

Please use this form to subscribe to AC 43-16 or to change your address if you are presently on the mailing list. Once your name has been entered, you will continue to receive this publication until you request your name be removed or a copy is returned because of a bad address.

Because this mailing list is independent of other FAA mailing lists, it is necessary that you notify us when your address changes. (Our address is on the following form.) If you are presently receiving this publication it is **NOT** necessary to send another form. The following form may be duplicated, as necessary. **Telephone requests will also be accepted, and our number is (405) 954-6487.**

AC 43-16 SUBSCRIPTION FORM	
If you would like to BEGIN receiving AC 43-16, or CHANGE your address, please complete the following:	
PLEASE PRINT INFORMATION LEGIBLY AND INCLUDE YOUR <u>ZIP CODE</u>.	
NAME:	<hr/>
ADDRESS:	<hr/>
	<hr/>
	<hr/>
	<hr/>
DATE:	<hr/>
<u>CIRCLE ONE OF THE FOLLOWING:</u>	
1.	This is a NEW SUBSCRIPTION .
2.	This is an ADDRESS CHANGE .
<u>SEND ONLY ONE FORM TO THE FOLLOWING ADDRESS:</u>	
FAA ATTN: Safety Data Analysis Section (AFS-643) P.O. Box 25082 Oklahoma City, OK 73125-5029	
If you require more than one copy of AC 43-16, it may be reproduced.	

FIGURE 14.—Alerts Order Form.

OBTAINING FAA PUBLICATIONS AND RECORDS

Advisory Circulars

Advisory circulars are issued by the FAA to inform the aviation public, in a systematic way, of nonregulatory material of interest. The contents of advisory circulars are not binding on the public unless incorporated into a regulation by reference.

Advisory Circular 00-2, Advisory Circular Checklist, contains a list of current FAA advisory circulars and provides detailed instructions on how to obtain them. It also contains a list of U.S. Government Printing Office bookstores located throughout the United States which stock many Government publications. This advisory circular may be obtained free upon request from the U.S. Department of Transportation, Subsequent Distribution Office (SVC-121.23), Ardmore East Business Center, 3341 Q 75th Ave., Landover, MD 20785, or fax: 301-386-5394.

Federal Aviation Regulations

The following regulations are those you may be most interested in reading. They pertain primarily to the operation and maintenance of the aircraft and to obtaining a pilot's certificate or an A&P mechanic certificate:

- Part 1 Definitions and Abbreviations
- Part 21 Certification Procedures for Products and Parts
- Part 23 Airworthiness Standards: Normal, Utility, and Acrobatic Category Aircraft and Commuter Category Airplanes
- Part 33 Airworthiness Standards: Aircraft Engines
- Part 35 Airworthiness Standards: Propellers
- Part 39 Airworthiness Directives
- Part 43 Maintenance, Preventive Maintenance, Rebuilding, and Alteration
- Part 45 Identification and Registration Marking
- Part 47 Aircraft Registration
- Part 49 Recording of Aircraft Titles and Security Documents
- Part 61 Certification: Pilots and Flight Instructors
- Part 65 Certification: Airmen Other Than Flight Crewmembers
- Part 91 General Operating and Flight Rules

Advisory Circular 00-44, Status of Federal Aviation Regulations, contains the current status of the FAR's including changes issued, price list, and ordering instructions. This advisory circular may be obtained free upon request from the U.S. Department of Transportation, Subsequent Distribution Office (SVC-121.23), Ardmore East Business Center, 3341 Q 75th Ave., Landover, MD 20785, or fax 301-386-5394.

Records

If you become an aircraft owner, pilot, or certificated mechanic, you may, at some time, need to obtain copies of documents pertaining to your aircraft, airman, or medical certification.

Documents pertaining to aircraft can be requested from:

Federal Aviation Administration
Civil Aviation Registry, AFS-750
P.O. Box 25504
Oklahoma City, OK 73125
(405) 954-3116

If your pilot certificate is lost, destroyed or mutilated, a replacement certificate may be obtained by sending a written request with your name, permanent mailing address, social security number, date and place of birth, and any additional information such as grade and certificate number with a check or money order for \$2 to:

Federal Aviation Administration
Civil Aviation Registry, AFS-760
P.O. Box 25082
Oklahoma City, OK 73125

If it becomes necessary to fly before a replacement certificate arrives, you may obtain a fax confirming your pilot status, which is valid for up to 60 days, from the Airman Certification Branch at (405) 954-3261.

Medical records are available at:

Federal Aviation Administration
Aeromedical Certification Branch, AAM-331
P.O. Box 26080
Oklahoma City, OK 73126-5063

If your medical certificate is lost, destroyed or mutilated, a replacement certificate may be obtained by sending a written request with your signature, birth date, and social security number with a check or money order for \$2 to:

Federal Aviation Administration
AMZ-320
P.O. Box 25770
Oklahoma City, OK 73125-4915

If it becomes necessary to fly before a replacement certificate arrives, you may obtain a fax confirming your medical status, which is valid for up to 60 days, from the Aeromedical Certification Branch at (405) 954-4821.

Fees for furnishing copies of paper records are \$2 for search, \$0.25 for copy of first page, \$0.05 for second and each additional page; \$0.15 for each microfiche for microfiched records; \$3 for certification of copies as duplicates of the original records; \$2 for duplicate aircraft registration or airman certification or medical certificate; and \$5 for certification for a diligent search of all possible sources of information.

Fees, which are subject to change, may be paid by check, draft, or postal money order, payable to the Treasury of the United States. Send your request to the proper branch.

If a prospective owner has reason to believe that an aircraft has been previously destroyed or demolished and has been rebuilt or restored, the Civil Aviation Registry, AFS-750 , P.O. Box 25504, Oklahoma City, OK 73125, may have documentation if the aircraft was reported to the FAA as destroyed or demolished. The aircraft records may be requested for review at the above address.

FSDO's are listed by state wherein their area of responsibility is assigned. Any contacts with a district office should be made to the office nearest your residence. If the responsibility for your locality is not with that office, you will be advised which office to contact.

For the current phone number of the FSDO in your area, check your local telephone directory under the section of United States Government Offices, Department of Transportation – Federal Aviation Administration – Flight Standards District Office.

U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

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